

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/09686

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B21J15/02 B21J15/04 F16B19/08 F16B29/00

According to International Patent Classification (IPC) or to both national classification and IPC.

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B21J F16B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	DE 101 60 771 A (NEWFREY LLC NEWARK) 26 June 2003 (2003-06-26) cited in the application the whole document ---	1,2,6
A	DE 37 44 450 A (BOELLHOFF & CO) 13 July 1989 (1989-07-13) column 1, line 26-42; figure 1 column 2, line 10-12; figure 2 ---	1,2,6
A	FR 1 300 424 A (J & S ENGINEERS LTD) 3 August 1962 (1962-08-03) page 1, column 2, line 24 -page 2, column 1, line 20 page 3, column 2, line 9-22; figures 1-6,10 ---	1,2,6

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

27 November 2003

Date of mailing of the international search report

05/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Augé, M

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/09686

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 196 52 031 A (BOSCH SIEMENS HAUSGERAETE) 18 June 1998 (1998-06-18) column 3, line 11-23; figure 1 -----	1,2
A	US 2002/119025 A1 (WIRTH KLAUS ET AL) 29 August 2002 (2002-08-29) figures 5-10 -----	
A	EP 0 351 715 A (HILTI AG) 24 January 1990 (1990-01-24) figures 1-5 -----	